

# Patient-Controlled Analgesia for Acute Injury Transfers: A Review

## Context

Pain management can often be suboptimal in patient transfer situations. Patients who must be transferred from a rural or remote hospital to a higher level of care can be in an emergency vehicle for several hours and, in some jurisdictions, doctors and nurses are not present in the ambulance to administer analgesics and the paramedics on board are not trained to do so. Therefore, giving patients a means by which they can administer their own analgesics — patient-controlled analgesia (PCA) — may lead to improved acute pain management.

## Technology

PCA refers to a patient's use of a medical device to deliver defined doses of pain medication on demand. Specific doses are programmed into the device by a health care professional, and the device administers each dose within defined time intervals. PCA is typically used to administer intravenous opioids, but it may also be used for other drugs (such as non-steroidal antiinflammatory drugs or local anesthesia) or for other routes of administration (such as subcutaneous, transdermal, pulmonary, or nasal administration). Although PCA is commonly used for postoperative pain, its use in acute pain management in the hospital emergency department has also been studied.

## Issue

A review of the clinical effectiveness, safety and harms, and guidelines regarding the use of PCA for acutely injured patients during transfer to a higher level of care will help inform decisions about pain management in these patients.

## Methods

A limited literature search was conducted of key resources, and titles and abstracts of the retrieved publications were reviewed. Full-text publications were evaluated for final article selection according to predetermined selection criteria (population, intervention, comparator, outcomes, and study designs).

## Key Messages

No clinical evidence or guidelines were found regarding the use of PCA by acutely injured patients during transfer to a higher level of care.

## Results

The literature search identified 387 citations, with no additional articles identified from other sources. Of the identified studies, 14 were deemed potentially relevant. After screening the abstracts, none of the studies met the criteria for inclusion in this review.

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